

ABSTRACT

The present invention provides a method for removing sacrificial materials in fabrications of microstructures using a selected spontaneous vapor phase chemical etchants. During the etching process, an amount of the etchant is fed into an etch chamber for removing the sacrificial material. Additional amount of the etchant are fed into the etch chamber according to a detection of an amount or an amount of an etching product so as to maintaining a substantially constant etching rate of the sacrificial materials inside the etch chamber. Accordingly, an etching system is provided for removing the sacrificial materials based on the disclosed etching method.